

# THE COMPETENCE OF INDONESIAN LANGUAGE AND LITERATURE TEACHERS THROUGH NETWORK LEARNING IN TWO TEACHER PROFESSIONAL EDUCATION MODES

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## Abstract

*This study's aims are to analyze (1) the different ability of teachers in developing education tools with the hybrid learning and special regional modes; (2) the different skills of the teachers in managing learning sections using the hybrid learning and special regional modes; and (3) the impact of network learning applications on the teachers' competence in the hybrid learning mode. The research method that is used is observation combined with a cross-sectional model. The data come from (1) the teachers' ability to develop a learning tool; (2) the teacher's ability to manage learning; and (3) the pedagogic competence test result of the Teacher Professional Education (TPE) hybrid learning mode participants. The data are then analyzed using descriptive statistics (minimum value, maximum value, mean, and standard deviation) and inferential statistics (comparison and correlation analysis). The results show that there are not any significant differences between the teachers' ability to develop the learning tools between the hybrid learning mode and special regional mode. However, in the teachers' ability to manage learning (performance), there is a significant result. The learning system application had a significant impact on teacher's pedagogic competence, especially for the hybrid learning participants. The application of hybrid learning in the implementation of TPE in Indonesia has had a positive impact on improving teacher competency, especially among Indonesian language and literature teachers.*

**Keywords:** Teacher Professional Education, Hybrid Learning, SPADA, Blended Learning, Competences

**JEL codes:** I20, I28

## 1. Introduction

Education is the heart of development; it helps people build productive lives and a cohesive society (Widiati & Hayati, 2015). The members of the Association of Southeast Asian Nations (ASEAN) have made a commitment toward building the ASEAN community starting in 2015 (Widiati & Hayati, 2015; Fauzan & Bahrissalim, 2017). One of the impacts of the ASEAN community commitments to the ASEAN Economic Society will be free competition in the ASEAN area. This affects not only the trade, business, and employee sectors, but also the educational sector (Widiati & Hayati, 2015). With free competition, foreign teachers can take over the teacher market within a country, especially if the local teachers are unable to compete. Consequently, the implementation of the ASEAN community is a special challenge not only for the Indonesian Government but also for teachers, who must improve their quality to compete in a free market (Widiati & Hayati, 2015; Fauzan & Bahrissalim, 2017).

In order to improve education quality, the Indonesian government is implementing a paradigm oriented to improving the quality of new teachers (Hidayah & Marhaeni, 2016; Febriana et al., 2018; Lilianti et al., 2019) including Indonesian language and literature teachers. One of the programs created by the Indonesian government is the Teacher Professional Education (TPE) program, which involves educational institutions and employees (Kurniasih et al., 2016). The aim of this professional education program is to increase the competitiveness of new teachers, including their pedagogic, individual, social, and professional competencies. Through professional education, the new teachers have a chance to develop their understanding and become high-quality professional teachers ready to face the developed

era (Zakirova, 2016) (Kurniasih et al. 2016). Studies have shown that the TPE program is able to provide a nurturing environment that supports learners in developing lesson plans and instructional materials and media, as well as other types of learning support. The program is able to implement good values in the teaching and learning process by providing role models and enhancing students' creativity (Widiati & Hayati, 2015; Hidayah & Marhaeni, 2016; Fauzan & Bahrissalim, 2017).

Moreover, in 2017, the Indonesian government, through the Ministry of Research, Technology, and High Education, prepared a TPE program for teachers in a profession (TPE for in-service teachers) and implemented it in 2018 (Kurniasih et al. 2016). The TPE for in-service teachers was designed under two modes: hybrid learning and the special regional mode. These mode differentiations are based on the participants' geographical location. The participants who are covered by an internet network are classified into the hybrid learning mode; meanwhile, those who are unable to access the internet are classified into the special regional mode (Kimshanov & Dyikanbaeva, 2015). According to Kurniasih et al. (2016), the hybrid learning mode is a new TPE model combining learning and material depth by using a network learning system application, Learning System in Network (*Sistem Pembelajaran Daring*) (SPADA). Conversely, the special regional mode TPE still uses face-to-face meetings for its implementation.

Several studies show that the hybrid learning concept is a good tool to support Teacher Professional Development. For example, Halverson et al. (2017) stated that the hybrid learning has a positive influence on teacher and educator capacity and supports the process of shared knowledge building. Ume (2016) stated that a developed e-learning system can increase the interaction between learners and instructors, and enable increased access to a learning resource even from a location that is spatially isolated and cannot access diverse students. A hybrid learning application in an algebra class in the University of Korea created a significant increase in mathematical maturity, reflection quality, and student satisfaction (Lee et al., 2017).

However, there is not much research that discusses the role of hybrid learning in the TPE application in Indonesia. It can only be found in Utami and Prestridge (2018), who have proposed four challenges faced by TPE participants in implementing the hybrid learning mode: the participants' lack of ICT skills, the incompleteness of the uploaded modules, instructors' unfamiliarity with the learning software, and excessive assignments to be finished in a limited time. It is essential to learn more about the impact of Hybrid learning on the teachers' professional ability and competence in the Indonesian TPE implementation. This will lead to the improvement and sustainability of the TPE program by using a hybrid learning mode. Thus, this study will focus on reviewing the different competencies of the Indonesian language and literature teachers within the TPE hybrid learning and special regional modes. Furthermore, this study also analyzes the influence of SPADA on the hybrid learning mode TPE. The research questions are as follows:

- 1) Is there a positive and significant difference in the ability of Indonesian language and literature teachers to develop learning devices between participants in the hybrid learning and special regional modes of TPE?
- 2) Are there positive and significant differences in the ability of Indonesian language and literature teachers in managing performance between participants in the hybrid learning and in special regional modes of TPE?
- 3) Is there significant influence from the application of the network learning system (SPADA) on the competence of Indonesian language and literature teachers who are participants in the hybrid learning mode of TPE?

## **2. Theoretical Framework**

### **2.1 Teacher Professional Education**

Law No. 14 of 2005 concerning teachers and lecturers states that teachers are professional educators with the main task of educating, teaching, guiding, directing, training, and evaluating students in early education, formal education, basic education, and secondary education. The TPE program is a result of

the implementation of Law No. 14 of 2005 and is intended to increase the teachers' competence. Research shows that the TPE program can provide significant education towards pedagogic competence and professionalism, which can be made use of in the duties and responsibilities of a teacher. The TPE program must be followed by the Bachelor of Education degree, which has a deeper and more detailed process, to create a professional and qualified teacher (Darmalaksana, 2017; Maba et al., 2017).

## **2.2 Teachers' Competence**

The standard competence of a teacher is fully developed from four main competencies: pedagogic, personal, social, and professional (Estriyanto et al., 2017). These four competencies are integrated into the teachers' work (Kusumah & Nurhasanah, 2017). For pedagogic competence there are 10 main competencies that must be mastered by teachers: (1) Students' characteristics in the physical, moral, spiritual, social, cultural, emotional, and intellectual aspects; (2) Studying theory and educational principles of learning; (3) the subject's thinking on the related curriculum; (4) implementation of learning; (5) the use of information technology and communication in the interest of learning; (6) the student's potential development; (7) effective, emphatic, and polite communication with the participants; (8) evaluation, judgment, and learning outcomes; (9) using evaluation in the interest of learning; and (10) reflective action to increase the quality of learning (Sulisworo et al., 2017; Robertson et al., 2018). The implementation of pedagogic competence can be measured in the development of learning devices and teachers' ability in managing learning in the class.

As the main implementers of an educational program at school, teachers have an important role in reaching the desired aim of education. In a learning process, the teacher has to push, guide, and provide learning facilities in order for students to achieve their goals (Zein, 2016; Allen et al., 2018). The teacher's role in a learning process is centered on: (1) educating children by giving them the background and motivation to reach their goal, for the short or long term; (2) providing facilities and media for an adequate learning experience; and (3) helping to develop aspects of the students' personalities, including attitude, values, and self-adjustment (Soebari & Aldridge, 2016; Zein, 2017).

Given the teacher's important role, they are required to have a comprehensive understanding and competent ability as an educator. The teacher is the most decisive component in the education system as a whole, as revealed by the Brand in Educational Leadership, which states that almost all education reform efforts such as curriculum renewal and learning methods, depend on teachers (Tondeur et al., 2016).

## **2.3 Learning System in a Network (SPADA)**

Hybrid learning is also called blended learning. It combines face-to-face learning with online learning, taking advantage of each. Furthermore, hybrid learning can become an alternative in university learning or distance learning (O'Byrne & Pytash, 2015; Cremers et al., 2016; Dwi, 2016; Hung et al., 2016; Kumpulainen & Mikkola, 2016; Leatemia et al., 2016; Porter et al., 2016; Friedmann et al., 2017; Abdulhak et al., 2018; Zainuddin & Keumala, 2018). The curriculum structure of the TPE hybrid learning mode using SPADA is seen in Figure 1. The Hybrid Learning implementation begins with deepening online material for about 10 credits (SKS). The workshop is implemented by refreshing knowledge of the Techno-Pedagogical Content Knowledge principles, developing 21st century skills, deepening material and reviewing and discussing the results, workshops on the development of learning and peer-teaching tools, and concluding with the preparation of classroom action research plans. The overall credit for the workshop is 8 credits (SKS). After the workshop, the practice of field experience (PPL) was performed for 6 SKS.

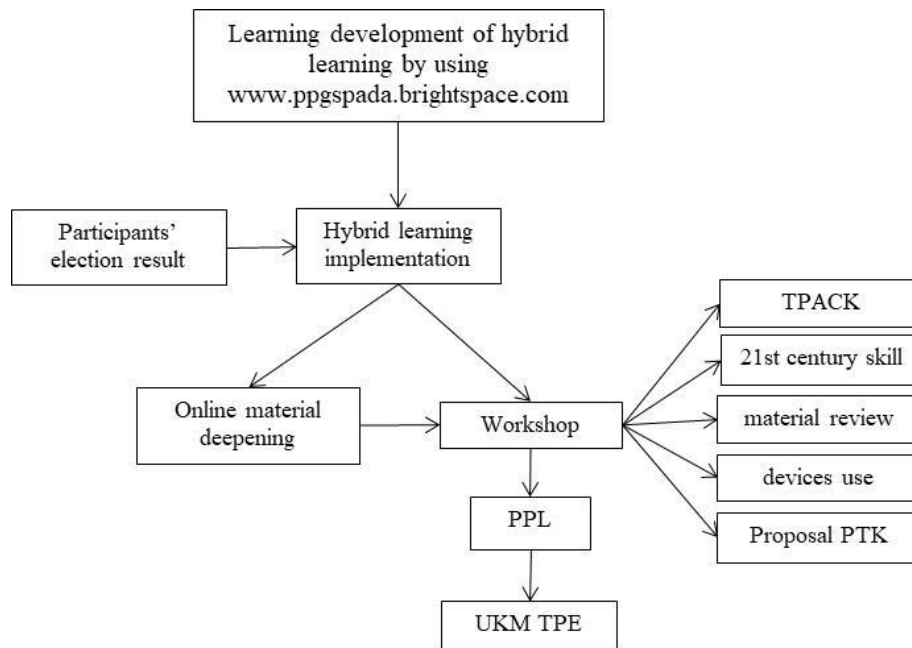


Figure 1. The hybrid learning implementation model for Teacher Professional Education (TPE) in-service teachers (Learning Directorate 2018)

The learning design structure of SPADA Indonesia can be accessed through <https://ppgspada.brightspace.com>. Every module (pedagogic and professional) (Figure 2) has the following design:

- Description of the module, including the titles of the teaching materials, description of the teaching materials for each module and learning activity (subject matter and concept map), achievements of each learning activity (CPMK), and sub-learning outcomes (sub-CPMK).
- Learning resources for each learning activity, in the form of teaching material texts (pages), online presentation media, learning videos, images, PDF file downloads, etc. The learning resources section also includes various activities for participants in the forms of (1) a discussion forum between participants and instructors and between participants themselves; (2) assignments based on learning activities in each module; and (3) formative tests at the end of each learning activity.
- Evaluation—a closing activity created by the developers of SPADA in the form of a module of final assignments and summative tests.

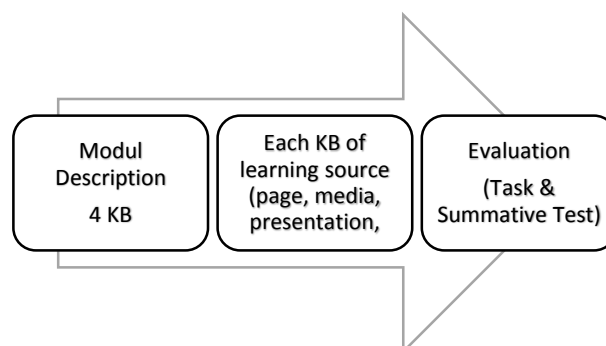


Figure 2. Design structure of Learning System in Network (SPADA) learning

### 3. Methods

This study looked at the whole population of less than 100 Indonesian Language teachers in the TPE in 2018. Twenty-seven followed the hybrid learning mode and 31 followed the special region mode (Arikunto, 2010). Demographic information was not collected regarding the sample. Retrieval of research data was done at the University of Muhammadiyah Makassar, This research uses an observation approach with a cross sectional model which has relations between each variable as shown in Figure 3:

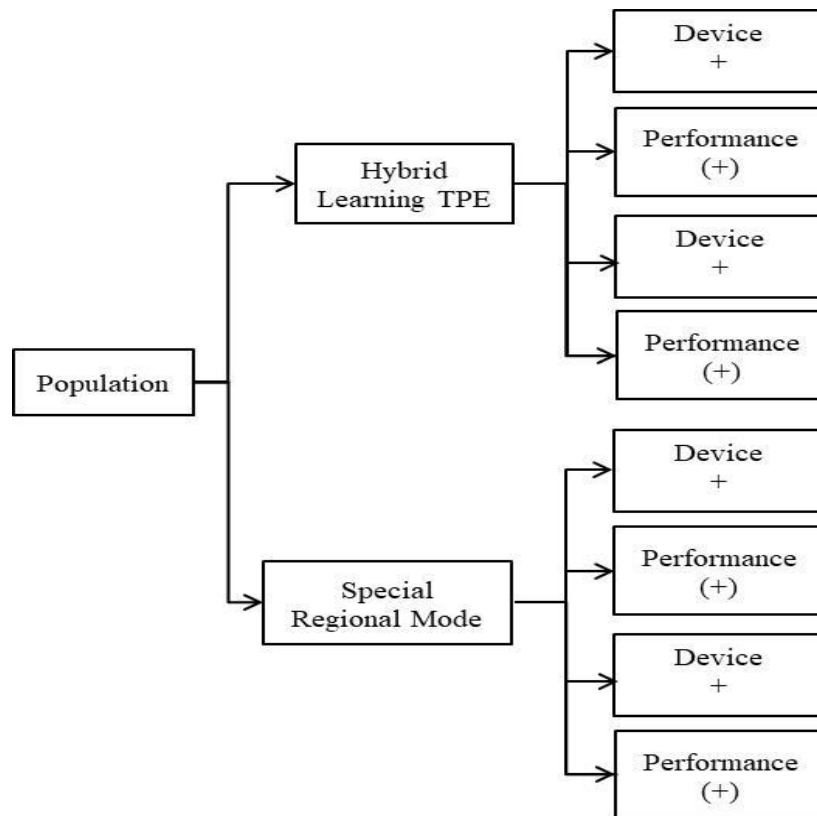


Figure 3. Research design

The data grouped by observation consisted of: (1) the teacher's ability in developing the learning devices; (2) the teacher's ability to manage learning (performance), and (3) the pedagogic competence test, especially for the TPE participants in the hybrid learning model. Verbal permission was obtained from participants. Data were analyzed using descriptive statistics (minimum value, maximum value, mean, and standard deviation) and the inferential statistics (comparative analysis and correlation). The data show the competency of the teachers by showing their ability to engage in certain activities. The hypothesis of this research is as follows:

H1: There is a positive and significant difference in the ability of Indonesian language and literature teachers to develop learning devices between participants in the hybrid learning and special regional modes of TPE.

H2: There is a positive and significant difference in the ability of Indonesian language and literature teachers to manage learning between participants in the hybrid learning and special regional modes of TPE.

H3: There is a significant effect of the application of the network learning system (SPADA) to the competence of Indonesian language and literature teachers who are participants in the hybrid learning mode of TPE.

#### 4. Results

The results of pedagogic descriptive competence analysis of study participants that use the hybrid learning or special regional modes are shown in Table 1. As can be seen, the average value for developing the learning devices in the hybrid learning mode is 90.66, whereas for the special regional mode the value is 90.28. Statistically, there are not any differences between the hybrid learning mode and special regional mode in the teachers' skill in developing learning devices as TPE participants. However, in the ability to manage learning, the average marks of teachers who joined the Hybrid Learning mode were higher than the teachers in the special regional mode.

Variable	Hybrid learning Mode				Special Regional Mode			
	Min	Max	Mean	SD	Min	Max	Mean	SD
Learning device	84.73	96.21	90.66	3.68	84.32	94.67	90.28	2.96
Performance	82.44	97.89	90.35	4.62	80.87	95.22	87.24	4.07
Pedagogic competence in SPADA	67.94	84.33	76.98	4.52	-	-	-	-

Table 1. Pedagogic Competence Descriptive Statistics for Indonesian Language and Literature Teachers Who Were TPE Participants in 2018

Research Variables	P	Description	Decision
TPE special regional learning devices development	0.046	not normally distributed	Mann–Whitney U Test
TPE hybrid learning devices development	0,034	not normally distributed	Mann–Whitney U Test
Managing learning (performance) for the TPE special regional	0.532	Normally distributed	Independent T Test
Managing learning (performance) for the TPE hybrid learning	0.247	Normally distributed	Independent T Test

Table 2. Normality Test Summary

Next, an inferential analysis was done to test the hypotheses. Hypothesis 1 was tested with the Mann–Whitney U Test because the data were not normally distributed. Then, hypotheses 2 and 3 were tested with the Independent T-Test for normally distributed data (Table 2). The summary of the hypothesis test results is shown in Tables 3 and 4 below:

Research Variables	P	Description	Decision
Learning devices development	0.604	Homogeneity	Mann–Whitney U Test
Managing learning (performance)	0.852	Homogeneity	Independent T Test

Table 3. Homogeneity Test Summary

Hypothesis	P	Decision
H1: There is a positive and significant difference in the ability of Indonesian language and literature teachers to develop learning devices between participants in the hybrid learning and special regional modes of TPE.	0.098	Reject
H2: There is a positive and significant difference in the ability of Indonesian language and literature teachers to manage learning between participants in the hybrid learning and special regional modes of TPE.	0.001	Accept
H3: There is a significant effect of the application of the network learning system (SPADA) to the competence of Indonesian language and literature teachers who are participants in the hybrid learning mode of TPE.	0.000	Accept

Table 4. Pedagogic Competence Summary

## **5. Discussion**

### **5.1 Ability in Developing Learning Devices**

The results seen in Tables 3 and 4 showed that there were no positive and significant differences between the hybrid learning and special regional modes in the ability of Indonesian language and literature teachers to develop learning devices. This is because learning devices are important and must be possessed by teachers. In accordance with the rules of the National Education System, a teacher who wants to teach must first prepare the device as a learning tool with a separate plan that discusses the objectives, content, and material of the lesson as well as the method used for meeting certain educational goals (Qamata-Mtshali & Bruce, 2018). Learning through hybrid and regional modes is specifically caused by two main factors. First, the teacher already has a learning device and only adapts the device to the content of the subject matter, the characteristics of students, and the model or method of learning. Second, teachers focus on developing learning tools centered on learning experiences.

This shows that in general TPE participants in hybrid learning and special areas have the same ability to develop learning devices. This result is in line with research that states that the ability of a teacher or prospective teacher is considered the same in both planning learning and in evaluation systems. However, comprehensive understanding and its implementation are not the same. So, it is possible that the learning device is only meant for administrative completeness (Ramli et al., 2018). The results of other studies are similar, finding that history teachers are good at developing learning tools in the form of RPP, learning media, teaching materials, and in the evaluation and assessment of learning outcomes (Liu et al., 2018).

### **5.2 Ability in Managing Learning (Performance)**

In contrast to the findings of the first hypothesis, the results of the analysis of the second hypothesis indicate that there are positive and significant differences in the ability of Indonesian language and literature teachers to manage learning between TPE participants in hybrid learning and special regional modes. This is because TPE participants in the hybrid learning mode get more innovative learning resources compared to special regional TPE participants. The deepening of the material in the special regional TPE modes only took place with lectures in the classroom such that special regional TPE participants found it difficult to illustrate concepts. In contrast, TPE participants in the hybrid learning mode were facilitated by various learning resources through SPADA during the deepening of the material, including learning videos and presentations and URLs (links) that correspond to material objects. SPADA learning resources or application learning management system (LMS) participants also have a search culture through utilizing search engines. Learning culture is said to change due to constant learning access to content and collaboration through the internet and social media (Setlhodi, 2019).

Learning by utilizing various types of sources has encouraged and increased the motivation of hybrid learning participants to implement sources into activities to manage learning. The results showed that the use of interactive and innovative learning resources in the form of videos and the like was more effective and efficient in understanding material (Firdaus & Rahman, 2017). Other research shows that the use of interactive learning resources in the learning process affects student learning outcomes. Nguyen (2015) stated that student learning outcomes using learning video media are more successful than those that do not use interactive media.

In simple terms, hybrid learning participants using SPADA for the deepening of the material have increased their knowledge by gaining new experiences. Using networked learning applications such as Massive Open Online Courses and LMS has changed the culture of many students, who now spend their personal time for informal learning. A new learning culture is created through a learning environment that is able to construct thinking and behavior patterns in organizations by changing students' attitudes and behavior (Rahardjanto & Fauzi, 2019).

### **5.3 The Influence of the Network Learning System (SPADA) on Hybrid Learning Participants**

The results of the data analysis of the third hypothesis shows that the SPADA implementation had a significant influence on the competence of the participants who used the hybrid learning mode. This result supports the second hypothesis, where there is a significant difference between hybrid learning mode and special regional mode users. This is also supported by previous research that stated that the more intensive e-learning that is utilized, the higher the learning quality of its users (Widyaningsih et al., 2017). Furthermore, other utilization research of SPADA also shows enhancement of both process and learning results because there is not any limitation of time and space. The learning process that can be done on the student's own time enhances their learning (Hartono et al., 2018).

Other research in Telkom University showed that the speed of access and privacy and security of college students can increase learning motivation and increase the students' academic achievement through implementation of an e-learning system (Pradana & Amir, 2016). Additionally, a study of STIKI Malang University's networked learning system development found the result of trial is increasing so that the learning system that is developed can be used to reach the predetermined learning goals (Prasetyo & Sakaria, 2015; Novitasari et al., 2018).

Utilization of SPADA in hybrid learning provides many benefits for participants, namely: (1) material objects can be accessed repeatedly because SPADA allows high learning flexibility, (2) communication with lecturers or fellow participants can take place at any time both directly and asynchronously. Instructors can: (1) update material objects, (2) control participants' learning activities, (3) provide feedback online, and (4) become the facilitators and assistants for participants. Despite these advantages, there are some limitations. For example, SPADA is not based on instructional design theories and models. Moreover, the use of SPADA does not always allow for interaction, which may impact learning, especially if constructive feedback is not provided in an effective way or the instructor overlooks questions. The lack of interaction in many cases leads to feelings that SPADA is impersonal. The use of SPADA also requires self-discipline on the behalf of the user. Finally, there is a loss of control to the students, whereas in a traditional classroom, the teacher maintains control.

## **6. Conclusion and Implication**

The results of this study indicate that the application of hybrid learning in the implementation of TPE in Indonesia has had a positive impact on improving teacher competency, especially among Indonesian language and literature teachers. Although the study of the development of learning devices was not found to be significantly different, hybrid learning teachers did manage learning better than the those in the special regional modes. Statistical tests also showed that there was a significant effect on the competence of Indonesian language and literature teachers in the hybrid learning mode.

However, during the research, there were several obstacles and additional findings discovered, including still incomplete pedagogic modules and databases of questions that lack quality and quantity. The researchers suggest that TPE organizers or authorized institutions make improvements to modules to provide pedagogical competency knowledge services as a whole, especially in terms of implementation of learning. In addition, it is also considered necessary to provide more innovative learning resources and improve the database of formative questions and summative tests both in quality and quantity.

The results of this study will support the arguments in the literature that the use of hybrid learning in learning can improve not only the process but also the learning outcomes of its users. As a follow-up to this research, in the future it is necessary to examine in more detail the part of the workshop that is held between the implementation of learning and PPL. In addition, it is necessary to examine the correlation between online learning, workshops, peer teaching, PPL, and performance testing. It is also necessary to do similar research for other subjects such as exact sciences to be used as a comparison.



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